ESO 1373

Supply Management Options: National Impact and Policy

Supply management for the U.S. milk industry -

What is it?

Why are we interested in it?

What are the objectives of supply management?

What are the pros and cons of supply management?

Where do we stand in terms of adopting a supply management program?

Background/Definitions

One of the problems in talking about dairy supply management is that everybody seems to have their own individual idea of what it means. I have talked with milk producers who had been on a base plan in their Federal order market thirty years ago, and that historic version of a base plan to them is supply management. Let's start by finding some common terminology.

Supply management can be defined as being a national program, authorized by Federal legislation, designed to use production control regulations rather than price to match the supply of milk with the demand for milk.

Historically, the milk industry has used price to match the supply of milk with the demand for milk. Even with the passage of the dairy price support program in the Agricultural Act of 1949, the criterion for adjusting support

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prices each marketing year was geared to a supply - demand factor, i.e., 'in the range of 75 to 90 percent of parity in order to assure an adequate supply.' For example, support prices were actually dropped five different times in the 1950's and 1960's by the Secretary to manage supply relative to demand. Milk surpluses in the 1949-1978 period averaged 4.2 percent (milk equivalent basis) annually, far short of the accumulations we have seen in the 1980's. The 4.2 percent surplus levels were deemed reasonable through that period, and price prevailed as the manager of supply.

Of course, we are much closer again to having price manage supply-demand than we are to adopting an overt supply management program. The Dairy and Tobacco Act of 1983 initiated the schedule of lower support prices we are now caught up in, dropping the level from $13.10 to $12.60 on December 1, 1983, and moving the industry toward the $11.10 that will be in place October 1 of this year. Price is currently in the driver's seat in terms of managing supplies.

But we are not here to talk about price. Supply management has already been defined as not including price as a production control measure.

Supply management can take one of two basic forms - it can be voluntary, or it can be mandatory.

Voluntary supply management is a production control program that carries an INCENTIVE to participate.

Mandatory supply management is a production control program that carries a PENALTY if you don't comply.

Too often, we confuse these two vastly different approaches. We have all seen proposals in the past two or three years, for example, that are described as being voluntary but carry substantial penalties for failure to comply.

Proponents of such proposals recognize that it is much easier to sell a program billed as being voluntary as compared to one billed as being mandatory.

It is relevant to suggest that voluntary supply management is a cure - it cures surplus milk by removing current production capacity. Mandatory supply management is a prevention - it prevents the production of excess milk. Whether an ounce of prevention is worth a pound of cure or not is obviously a substantial debate in the milk industry.

We are here this morning to discuss mandatory supply management. But first we need to acknowledge the kinds of dairy supply management programs we have experienced in this country.

1. We have never had a national mandatory supply management program for milk in the United States.

2. We are currently phasing out of the third national voluntary supply management program we have had in history. All three of these programs have come into place in the past four years as various means of coping with the runaway surplus were advanced.

a. The 50 cent rebate program, or second 50 cents, was in place for only three months in late 1983 (September - November). Dairy farmers reducing production by at least 8.4 percent from their 1981-82 base got a 50 cent per cwt. refund on all milk marketed. The program was so short-lived that it had very little impact.

b. The Diversion Program, that lasted for 15 months in 1984 and early 1985, was the second voluntary supply management program. The incentive to participate was $10 per cwt. for milk that was not marketed, i.e., diverted in the amount of 5-30 percent below their 1981-82 base. Approximately 20 percent

(37,888) of the nation's commercial dairy farmers participated in the diversion program.

c. The Dairy Termination Program, or Whole Herd Buyout program is the third, and probably not the last, implementation of voluntary supply management. This 18 month program, which started April 1, 1986 is in its final stages. A total of 39,534 dairy farmers in the U.S. submitted price bids on a per cwt. basis in relation to their 1984-85 base marketings. The number of dairy farmers that submitted acceptable bids ($22.50 per cwt. or less) totalled 13,988.

When we talk about supply management, it is important that we recognize these voluntary supply management programs because we may see a lot more of them in the future and never see a mandatory supply management program.

Some of the reasons why voluntary supply management programs loom as important considerations include:

1. The programs have generally been recognized as having achieved their purposes, at least in the short run.

2. The programs can be partially or fully financed by assessments on milk producers.

3. Dairy farmers and the public (excluding cattlemen) seem to score the programs as being acceptable.

Also, we should not forget that the Food Security Act of 1985 states that "the Secretary may establish and carry out a milk diversion or milk production termination program for any of the calendar years 1988, 1989, and 1990 as necessary" to avoid burdensome excess supplies.

Voluntary supply management programs do not have to be short term, although thus far they have been designed that way.

There are other kinds of base plans in milk. Let me acknowledge, and dismiss, them quickly because they do not get at the purposes of national supply management.

1. Nine of the 43 Federal milk order markets currently utilize base-excess plans. These plans are designed exclusively to iron out seasonality; they have moving bases; and excess milk is not subject to any significant penalty.

2. Class I base plans in Federal order markets are a matter of history. Authority for their implementation was not re-newed in 1981 Farm Act. Only two markets ever adopted Class I base plans. The plans were not production control plans; they only distributed pool money in relation to a Class I base.

3. A very few States - California, Virginia, and Oregon come to mind - operate base plans through their State milk agencies. These base plans are not supply management plans. Over base milk is priced at the manufacturing milk price, and that cannot be considered a penalty price. State base plans are primarily a means of assuring an individual milk producer his share of the Class I market.

4. Occasionally we hear reference to dairy cooperative base plans. It is a very unusual market situation that permits a cooperative to operate a base plan. Cooperatives are voluntary organizations, and when a cooperative adopts a base plan that has any discipline to it, a membership or non-member problem is certain to develop. Furthermore, most effective dairy marketing cooperatives have their own manufacturing facilities, and they have a vested interest in running milk through their plants.

Supply Management Rationale

Why are we interested in national mandatory supply management? There is widespread agreement that an absolute propensity to produce milk at low costs and beyond market demand in the long run exists in the dairy industry. I think it's fair to observe that the steam behind the supply management school comes out of a fear of a current and a yet to be implemented technology in milk production. We are afraid of the future and of what these milk cows are going to be able to do. Production per cow has tripled since World War II, and we are looking at almost another doubling by the turn of the century.

In their March, 1986 report, the Office of Technology Assessment stated, "The most dramatic impacts [of emerging technologies] will be felt first in the dairy industry .... New technologies adopted by the dairy industry will increase milk production per cow far beyond the 2.6 percent annual growth rate of the past 20 years. Under OTA's most likely conditions, milk production per cow is expected to increase from current levels to at least 24,000 pounds by the year 2,000, an annual growth rate of 3.9 percent" [1].

If one is ready to accept these kinds of projections, then supply management has to be considered a serious alternative. At the present time, it requires a net reduction of 104,000 milk cows n the United States to offset every 1 percent increase in production per cow. A reduction of 104,000 milk cows, assuming an average dairy herd of 65 milking cows in the U.S. at present, means the required exit of 1,600 dairy farmers (assumes constant demand). When OTA talks about a 3.9 percent increase each year in production per cow, one can see how quickly the pressure on survival of the family dairy farm multiplies.

Are we ready to accept the social-structural changes that those numbers suggest? Conclusions in the OTA study are that price support policies that

reflect the schedule of the dairy title of the Food Security Act of 1985 would work against survival of the family dairy farm. The specific contrast is as follows:

(1) A 52 cow dairy farm in Minnesota has only a 74 percent probability of survival through the 1983 - 1992 period with present policies.

(2) With mandatory supply management, the survival probability for that same dairy farm would increase to 92 percent.

Since three-fourths of the dairy farms in the United States fit the 52 cow herd size model pretty well, it's not difficult to perceive the attraction that supply management is going to continue to hold for the milk industry.

Supply Management Objective

Supply management, by definition, means that the milk industry is choosing an objective of price enhancement - of establishing producer milk prices significantly higher than long run market clearing prices. If this were not the case, then we would not have to concern ourselves with production controls. It's reasonable to state that the comprehensive objective of supply management is to return prices to milk producers at levels high enough to permit "average" dairy farmers to enjoy a satisfactory level of living, while avoiding the production of excess milk supplies.

The 1977 Farm Act, with its 80 percent of parity stipulations, gave the milk industry price enhancement without production controls; leading us into the 8, 10, and 12 percent surpluses we have been burdened with in the 1980's. Historically, the purpose of the price support program was to provide dairy farmers a support price in the short run, but one that would only be at "safety net" levels over the long run. Some people call that the market oriented school. We have learned our lesson. If we want price enhancement in our price

support program, then we must come up with an acceptable and effective supply management program.

Supply Management - Pros and Cons

It is difficult to evaluate mandatory supply management in general terms because the specific provisions of a supply management program can have a major impact on the various effects of the program. For example, if bases are transferable, the effects are much different than if they are not transferable. Or, if feed grains are also subject to supply management, the impact on the dairy sector will be substantially different than if feed grains are not subject to supply management, especially as dairy farmers that purchase most of their feed are affected relative to those that grow most of their feed.

The essential elements of a mandatory supply management program include -

(1) Assignment of a base to each producer, geared to marketings in a recent production period.

(2) Assignment of an annual quota to each producer as a percentage of base, established at a level that would achieve national supply - demand balance.

(3) Establishment of an enhanced price for quota milk, developed by a procedure such as a dairy parity formula or some other price mover.

(4) Establishment of a penalty price for over-quota milk, at a level that would be lower than variable costs of milk production, and probably low enough to permit exports of products made from over-quota milk to move into the world market without subsidy.

With that picture of a supply management program as a starter, some pro-

con ideas with respect to seven basic effects of supply management can be advanced.

1. Price-Income Effects

There are no quick and simple answers to the question of what the price-income effects of mandatory supply management add up to. Supply management is grounded in the economic principle that the demand for dairy products, especially fluid milk products, is very price inelastic. Therefore, a shift in the supply curve to the left, through a production control program, can mean higher prices and greater total revenue at the dairy farm.

We often look to Canada/Ontario for evidence to help evaluate what mandatory supply management would accomplish in the United States. It is probably the best working model we can look to. But comparisons cannot be made strictly because (1) it is unlikely that the United States would ever turn over to producer milk marketing boards the powers - price, quotas, license, etc. - that have been assigned in Canada, and (2) the Canadian milk industry, especially in Ontario and Quebec where 74 percent of Canada's milk is produced, have a different history, structure, and technological base as compared to the United States. But it is inevitable that we do look to the Canadian situation, especially since the milk producers of Canada are highly supportive of their supply management approach.

Producer milk prices, without question, can be enhanced with supply management. A recent Michigan State University report indicated that while milk prices in the U.S. have been eroding in the 1980's, producer prices in Canada have been moving upward ($12.15 cwt in Michigan in 1985 versus $14.91/cwt. in Ontario) [2]. Without supply management, the same supply driven

pressures on milk prices that we have seen in the United States since 1981 would have occurred in Canada.

Impacts of supply management on producer income are subject to a large extent to the rules of the plan. Base transferability is the key consideration. The average Ontario dairy farm, 43 milk cows, had quota value estimated at $153,000 in 1985. Quotas take on substantial values because they represent a privilege to market milk and to receive a significantly higher price for the quota amount of milk. The value of quota therefore becomes an asset in the balance sheet and an additional cost in the schedule of production costs. Volume constraints of the quota may also place the dairy farmer in the position of having excess capacity in various inputs to the point that net farm income is reduced. In commenting on the strengths of Ontario's program, the only reference to price - income impacts that Loren Hurd of the OMMB has made are that, "The plan put individual producers in a position, for the first time, where the returns they received from the market could not be jeopardized by the amounts of milk marketed by other producers, either within a province or nationally" [3]. The implication is that direct price - income effects have been relatiely limited.

2. Surplus Milk

The observation of Loren Hurd on protecting an individual's marketing position from other milk producers comes very close to how we view Class I base plans and State base plans. In national mandatory supply management, surplus can be geared from zero to any amount you might want. Canada has experienced surpluses of less than 1 percent annually in recent years. That compares with U.S. surpluses that averaged 9 percent of annual

milk marketings in the 1980-1986 period, even as we fiddled with voluntary supply management programs. Prices for over-quota milk that are at such low levels that they represent substantial losses for over-quota production can balance supply and demand quickly. The direct public cost of a dairy price support program, which has hovered in the $2 billion a year range in this country in recent years, can be reduced to zero by not having surplus to purchase and by having in-quota levies that address the problem of higher surpluses of SNF compared to butterfat.

3. Commercial Demand

The demand for milk and dairy products responds to changes in price, but it is an inelastic response. Most researchers have estimated something around - 0.2 for fluid milk products and - 0.8 for manufactured dairy products. Milk prices can be increased with a proportionately smaller effect on quantity demanded.

Commercial demand for milk and dairy products in the U.S. jumped from 122.5 billion pounds in 1983 to an estimated 137.0 billion pounds in 1987, plus 10 percent in just four years. Demand has increased in a time of lower producer prices and lower <u>real</u> consumer prices for milk and dairy products. The 15 cent per cwt. generic promotion program may have had something to do with it, but the first two annual reports of the National Dairy Board have not been able to evidence any promotion-demand causal relationship.

We went through almost two generations of declining demand for milk and dairy products, and all of us got pessimistic about the long term market. But a major turnaround has occurred. Now there is some uncertainty about affecting the strong demand situation with a high price program. The two significant commodities in the United States that have mandatory supply

management, peanuts and tobacco, are in declining market situations. Other factors than high quota prices may explain the peanuts-tobacco situations, but the high prices cannot be dismissed. Will demand for milk and dairy products be adversely affected by high quota prices? Absolutely. Should the estimated effects on demand preclude us from making further inquires into supply management? Probably not.

Family Farms

Saving the family farm is at least an implicit and probably an explicit objective of mandatory supply management. In fact, the name of the Harkin-Gephardt bill in Congress is the "Save the Family Farm" bill. But mandatory supply management does not necessarily stop or even slow down the trend toward greater concentration in milk production. As the Canadian experience indicates, with base transfer, there are simultaneous incentives to exit and to expand. Cropp and Jesse refer to this as the push and pull influence [4]. Note the relative changes in dairy farm numbers in Canada and the U.S. in recent years.

Dairy Farm Numbers, Canada and United States

Year	Canada	United States
1975/76	79,833 Farms	422,000 Farms
1984/85	44,629	273,600

In the recent decade, the number of farms with milk cows in the United States, without supply management, decreased by 35 percent; the number of farms

selling milk to processing plants in Canada, with supply management, declined by 44 percent.

The base transfer provision "pushes" some producers to get larger by purchasing more quota, and "pulls" other producers out of dairying as they capitalize on the sole of their quota.

Cornell University research has also shown that mandatory supply management that also extends to feed grains would leave milk producers who buy most of their feed worse off as compared to present policy [5].

So mandatory supply management is not by definition a device that will save the family dairy farm. Base transfer does not have to be handled like it is in Canada. The government could hold title to all quota and could make all quota assignments. How to handle base transfer comes down to what you want the production control program to do. What is the objective?

Production Efficiency

Many of the concerns about mandatory supply management come down to its impact on production efficiency. Again, the rules for base transfer enter the discussion. If bases are transferable, most of the questions concerning milk production efficiency and economic resource allocation are resolved. It is true that production per cow in Canada lags about 25 percent below the almost 13,600 pound level we will reach in the United States this year, but the supply management program is not a factor in that lag.

Knowing that the amount of milk they can market at a quota price is fixed, milk producers would shift their decision-making emphasis from that of growth and expansion to that of cost minimization for the quantity they can market.

Of course, they would be keeping constant track of the buy quota-sell quota possibilities.

If bases are not transferable, the efficiency questions become more critical. Higher cost producers would have very little incentive to exit from dairying and, in effect, would be subsidized by the higher quota price. Adoption of new technology would be slowed and the entire industry would be less competitive. The burden of fine tuning the quota program - who gets quota - where should quota be assigned - in ways that would invite progress and efficiency would be in the hands of government.

Dairy Cooperatives

Milk marketing cooperatives have been at the forefront of lobbying for dairy price support programs that would benefit their members. But mandatory supply management poses some new questions. Dairy cooperatives would have to get used to the idea that they can no longer set prices. Super-pools would disappear. The quota price and the over-quota price would become the prices. It would not be acceptable to permit dairy cooperatives to bargain for higher prices in a market which had been shortened by a mandatory control program. In effect, mandatory supply management means that the government prices are not only minimums but are also maximums.

Also, dairy cooperatives have built milk manufacturing facilities on a large scale over the years to undergird their bargaining purposes and to guarantee their members a market. When the manufacturing facilities are running near capacity, which is the case in periods of excess milk supply, the cooperatives are into profit making situations. Any program designed to

shorten milk supplies hurts the cooperatives and therefore the farmer members who own the facilities.

In Canada, the Ontario Milk Marketing Board has become a kind of super-cooperative. In a sense, existing cooperatives lose much of their reason to be - bargaining, guaranteeing a market, assembly of milk, etc. In the end, many dairy cooperatives would back off from supporting mandatory supply management.

Milk Production Regions

For more than thirty years, from its inauguration in 1949, the dairy price support program operated as a national program, and there were basically no regional criticisms or regional differences that challenged the program. This is true because the direct effects of the program were on price, and all regions of the country enjoyed the same price effect on their milk used for manufacturing and on their basic formula price.

This was true even though most Commodity Credit Corporation purchase activity occurred in only four States. In 1985-86, the four States where most product was acquired were, in order, California, Minnesota, Wisconsin, and Washington. In 1985-86, 61 percent of the butter, 69 percent of the cheese, and 57 percent of the nonfat dry milk were purchased from firms located in those States.

Now that production controls have been introduced to the milk industry in the recent voluntary supply management efforts, regionalization has emerged. It doesn't make sense to apply uniform cutbacks in milk production across the nation when there would be limited impact in some surplus areas and severe shortages in some deficit areas. Supply management,and especially mandatory

supply management, will have to reflect some regional differentiation in its implementation.

Prospects

Some of the intense interest in supply management that existed a year ago has moved to the backburner. This is true in part because the whole herd buyout program has removed some of the visibility of surplus milk from the picture. Most of the current discussions on legislative proposals have to do with cancelling price support drops. But I expect that as milk production builds again as the whole herd buyout impact fades, interest in supply management will come back accordingly. The primary efforts will be directed at getting another voluntary program into operation as authorized by the 1985 Farm Act.

Mandatory supply management is well out into the future. General agreement for such an approach across the milk producer sector does not now exist. We are going to have to see the full impacts of biotechnology on production per cow a decade hence before serious development of the mandatory approach occurs.

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